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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,389	11/15/2000	John E. Gavlik	P04761	3470

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EXAMINER

EL CHANTI, HUSSEIN A

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/713,389	Applicant(s) GAVLIK ET AL.	
	Examiner Hussein A El-chanti	Art Unit 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/1/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This action is responsive to amendment received on June 1, 2004. Claim 17 was amended. Claims 1-23 are pending examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Rostoker et al., U.S. Patent No. 5,856,975 (referred to hereafter as Rostoker).

As to claim 1, Rostoker teaches an apparatus for controlling a physical layer interface of a network interface card, said apparatus comprising:

a read only memory (ROM) capable of storing an embedded control program (see col. 9 lines 31-40 and col. 28 lines 55-65);

a random access memory capable of storing a downloadable software control program (see col. 5 lines 1-5); and

a microcontroller capable of controlling said physical layer interface, wherein said microcontroller in a first operating mode executes said embedded control program to thereby control said physical layer interface, and wherein said microcontroller in a second operating mode is capable of downloading said downloadable software control program from an external processing system and executing said software control

program in place of said embedded control program to thereby control said physical layer interface (see col. 4 lines 34-60 and col. 5 lines 1-5).

As to claim 2, Rostoker teaches the apparatus as set forth in Claim 1 wherein said ROM is an internal ROM in said microcontroller (see col. 12 lines 22-30).

As to claim 3, Rostoker teaches the apparatus as set forth in Claim 1 wherein said RAM is an internal RAM in said microcontroller (see col. 11 lines 43-51).

As to claim 4, Rostoker teaches the apparatus as set forth in Claim 1 wherein said ROM is an external ROM coupled to said microcontroller (see col. 11 lines 43-51).

As to claim 5, Rostoker teaches the apparatus as set forth in Claim 1 wherein said RAM is an external RAM coupled to said microcontroller (see col. 11 lines 43-51).

As to claim 6, Rostoker teaches the apparatus as set forth in Claim 1 wherein said microcontroller downloads said downloadable software control program from said external processing system via a media independent clock (MDC) signal line and a media independent input/output (MDIO) signal line (see col. 8 lines 42-67).

As to claim 7, Rostoker teaches the apparatus as set forth in Claim 6 wherein said microcontroller downloads said downloadable software control program via a medium access control (MAC) layer interface coupling said external processing system and said physical layer interface (see col. 9 lines 1-12).

As to claim 8, Rostoker teaches the apparatus as set forth in Claim 1 wherein said microcontroller further comprises a plurality of control registers capable of controlling said first and second operating modes, wherein said microcontroller switches from said first operating mode to said second operating mode when said external

processing system stores a jump address in said RAM in a first one of said plurality of control registers (see col. 28 lines 46-65 and col. 29 lines 54-col. 30 lines 8).

As to claim 9, Rostoker teaches a processing system comprising:

a data processor;

a hard disk drive capable of storing thereon a network interface card (NIC)

configuration file containing a downloadable software control program; and

a network interface card for coupling said processing system to a data network, said network interface card comprising:

an apparatus for controlling a physical layer interface of said network interface card, said apparatus comprising:

a read only memory (ROM) capable of storing an embedded control program (see col. 9 lines 31-40 and col. 28 lines 55-65);

a random access memory capable of storing a downloadable software control program (see col. 9 lines 31-40 and col. 28 lines 55-65); and

a microcontroller capable of controlling said physical layer interface, wherein said microcontroller in a first operating mode executes said embedded control program to thereby control said physical layer interface, and wherein said microcontroller in a second operating mode is capable of downloading said downloadable software control program from an external processing system and executing said software control program in place of said embedded control program to thereby control said physical layer interface (see col. 4 lines 34-60 and col. 5 lines 1-5).

As to claim 17, Rostoker teaches a physical layer interface controllable by a microcontroller embedded therein, a method of operating the microcontroller comprising the steps of:

in a first operating mode, executing an embedded control program stored in a read only memory (ROM) coupled to the microcontroller to thereby control the physical layer interface (see col. 4 lines 34-60 and col. 5 lines 1-5);

in a second operating mode, downloading a software control program from an external processing system and storing the software control program in a random access memory (RAM) coupled to the microcontroller and, in response to the step of downloading the software control program, executing the software control program in place of the embedded control program to thereby control the physical layer interface (see col. 4 lines 34-60 and col. 5 lines 1-5).

3. Claims 10-16 and 18-23 do not add or define any additional limitation over claims 1-9 and therefore are rejected for similar reasons.
4. Applicant's arguments filed have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that; A) Rostoker does not disclose an embedded control program stored in a read only memory.

In response to A) Rotsker teaches a method of transforming ATM packets to MPEG packets where the method includes a RISC microprocessor coupled between a computer and a conversion sub-layer payload data units where the microprocessor responsible for controlling the transfer between the memory, host and ATM network

(see col. 4 lines 45-60). Rostoker also teaches the microprocessor with an EPROM that has a control program stored thereon. The program has interrupts which make the program more efficient (see col. 13 lines 10-20) and therefore Rotsker meets the scope of the claimed limitation "ROM capable of storing an embedded control program".

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A El-chanti whose telephone number is (703)305-4652. The examiner can normally be reached on Mon-Fri 8:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2157

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein El-chanti

August 1, 2004



SALEH NAJJAR
PRIMARY EXAMINER